

RESUBMERGENCE OF *HYDRODYSSODIA* B.L. TURNER INTO
HYDROPECTIS MCVAUGH (ASTERACEAE, TAGETEAE), WITH
DESCRIPTION OF A NEW SPECIES, *HYDROPECTIS ESTRADII*, FROM
CHIHUAHUA, MEXICO

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ABSTRACT

Description of a new species, *Hydropectis estradii* B.L. Turner, has led to the reexamination of its relationship to *H. aquatica* (S. Wats.) Rydb. and *H. stevensii* McVaugh, the latter positioned in a monotypic genus, *Hydrodyssodia*, by Turner in 1988. It is concluded that creation of the latter genus on morphological grounds was ill-considered; this conclusion is also supported by preliminary DNA data (Loockerman & Jansen, unpubl.). As currently circumscribed, *Hydropectis* is composed of three aquatic or subaquatic species: *H. aquatica*, *H. stevensii*, and *H. estradii*. A key to these species is provided along with an illustration of their achenes.

KEY WORDS: Asteraceae, Tageteae, *Hydrodyssodia*, *Hydropectis*, México

Routine identification of Mexican Asteraceae has revealed the following novelty.

HYDROPECTIS ESTRADII B.L. Turner, *spec. nov.* TYPE: MEXICO. Chihuahua: Mpio. Gomez Farias, Laguna de Babicora, "pastizal inundable, 2150 msnm", 9 Sep 1994, T. Lebgue & E. Estrada 3499 (HOLOTYPE: TEX!; Isotypes to be distributed).

Hydropectis stevensii McVaugh similis sed differt foliis simplicibus (vs. pinnatum dissectis), capitulis in pedunculis brevioribus (1-3 mm longis vs. 5-15 mm longis), et corpore acheniorum majore (ca. 3.5 mm longo vs. 2.5-3.0 mm longo) ac perspicue omnino pubescenti (vs. glabro supra basim).

Aquatic or subaquatic tap-rooted, glabrous herbs to 15 cm high. Midstems simple, seemingly procumbent, linear-lanceolate to nearly filiform, epustulate or nearly so, 3-5 cm long, 0.5-1.0 mm wide. Heads axillary, arranged one to a node on glabrous peduncles 1-3 mm long. Involucres broadly turbinate (at anthesis) to ovoid (in fruit), 4-5 mm high, 4-5 mm wide; involucre bracts 5, separate, broadly obovate, glabrous, seemingly devoid of pustules, the apices red-scarious and mostly rounded. Receptacle convex, glabrous, epaleate, knobby. Ray florets pistillate, fertile, 5-8 per head, the corollas ca. 1.5 mm long, the ligules short, ca. 0.5 mm long, purplish or yellowish. Disk florets numerous, perfect, fertile, the corollas mostly yellow, ca. 1.5 mm long,

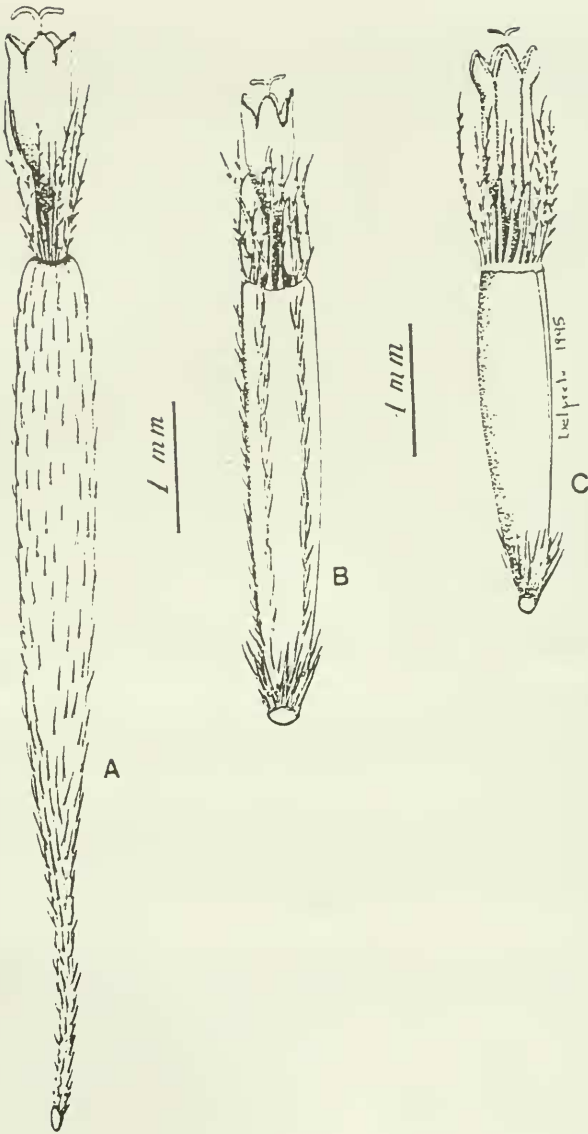


Figure 1. Achenes of *Hydropectis* species: a. *H. aquatica*; b. *H. estradii*; c. *H. stevensii* (type material). Voucher specimens marked and on file at TEX.

4-lobed, glabrous, the tube poorly developed if at all, the lobes ca. 0.5 mm long. Achenes of the ray and disk similar, linear-oblongate, ca. 3.5 mm long, 0.5 mm wide, tangentially compressed, carbonized, minutely striate, appressed-pubescent from top to bottom, with a denser tuft at the very base; pappus of numerous, variable, mostly purplish, ciliate or lacerate scales 1.0-1.5 mm high, arranged in a single series.

Label data states that the plants concerned are "stoloniferous", but the root on the holotype appears to be a weakly developed taproot. Perhaps the collectors were misled by the plant's procumbent primary stem.

Hydropectis estradii is vegetatively similar to *H. stevensii* McVaugh, the latter known only by collections from northeastern Jalisco and closely adjacent Guanajuato (McVaugh 1984; Turner 1988). It is readily distinguished from the latter by the achenal characters called to the fore in the above diagnosis (cf. Figure 1).

A key to the species of *Hydropectis* follows:

1. Involucral bracts united for ca. 4/5 their length; achenes 8-9 mm long, stipitate for 1-2 mm at their base (Figure 1a).*H. aquatica*
1. Involucral bracts free throughout; achenes 2-4 mm long, estipitate or nearly so. ..(2)
 2. Body of achene glabrous throughout, except for a basal tuft of hairs; peduncles 5-15 mm long; Jalisco and Guanajuato (Figure 1c).*H. stevensii*
 2. Body of achene pubescent throughout (Figure 1b); peduncles 1-3 mm long; Chihuahua.*H. estradii*

The treatment of *Hydropectis stevensii* as the monotypic genus *Hydrodyssodia* (Turner 1988) was ill-considered. My previous judgment heavily weighted the morphology of the involucral bracts, which in *H. stevensii* are free from base to tip, as in *Dyssodia*, but which in *H. aquatica* are nearly completely united, as in *Tagetes*. Based on this, I hypothesized that *H. aquatica* (S. Wats.) Rydb. and *H. stevensii* are not most closely related to each other, but preliminary DNA data from the current studies of Dennis Loockerman (unpubl.) strongly suggests that they should be considered congeneric and more closely related to *Tagetes* than *Dyssodia*. The new species is thus added here to *Hydropectis*.

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LITERATURE CITED

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